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Correct Figures on the Lake Movement of Soft Coal.

Below is presented a correct statement of the lake movement of the bituminous coal during 1890. These figures represent the only complete report within the past six years of shipments from Lake Erie ports. Laws governing the movement of vessels do not admit of a reliable report being secured from collectors of customs. The Pittsburg Coal Shippers' Association, knowing this disadvantage to exist in the customs houses, a few weeks ago instructed its secretary to collect the figures from the different railway companies carrying coal from the mines to lake ports. The work was accompanied by some difficulties and reluctance on the part of the railway companies to give up the figures but the statement was finally completed. The officers of the coal dealers' association also guarded the figures earnestly but they were given out to the different agencies, and, by a little ingenuity, the MARINE REVIEW is enabled to present them herewith:

	Ohio Coal.	Penna. Coal.	Total.
Erie	.....	129,304	129,304
Ashtabula	.....	452,394	452,394
Fairport	.....	63,360	63,360
Cleveland	251,193	671,343	922,536
Lorain	196,016	31,165	227,181
Huron	150,000	.....	150,000
Sandusky	271,540	.....	271,540
Toledo	891,501	.....	891,501
Totals	1,760,260	1,347,566	3,107,816

Bids for St. Mary's River Patrol.

Bids will be opened in the office of the light-house inspector, Eleventh district, Detroit, Mich., at noon, on April 1st, next, for furnishing a steamer for use in a daily patrol of the St. Mary's river, from the opening to the close of navigation, 1891. According to a letter from Commander Heyerman, the vessel should have a derrick of sufficient size to raise a first class buoy weighing about 6,000 pounds, and with steam power to drive her at a speed of at least seven statute miles per hour. She must be in charge of a competent master, so well acquainted with the St. Mary's river as to enable him to replace in proper position any buoy that may be removed by rafts or otherwise, and a crew sufficient to handle her. The bid is to cover every item of expense, such as fuel, wages, provisions, etc. In other words, the government is to furnish nothing. The bid may be made on an ordinary sheet of paper, and is to state at how much per day, or per month, a vessel as above described will be furnished Bid to be marked on the outside of envelope, "Patrol of St. Mary's river, Mich.

Names will be Conspicuous.

Names of all steam vessels will soon appear upon each bow, upon the pilot house and upon the stern, and all sail vessels will have their names upon each bow as well as the stern. In a circular to the collectors of customs, William W. Bates, commissioner of navigation, calls attention to an act of the last congress which amends Sec. 4178, revised Statutes of the United States, relating to the marking of vessels' names, so that after June 1, 1892, the name of every documented vessel of the United States shall be marked upon each bow as well as the stern, and the home port shall also be marked upon the stern. The name shall be painted, or carved or gilded, in Roman letters in a light color on a dark ground, or in a dark color on a light ground, and to be distinctly visible. The smallest letters used shall not be less in size than four inches. The penalty is $10 for each name omitted. This amendment to Sec. 4178 undoubtedly means that the steam vessel must have her name placed on bows, pilot house and stern, as there is no action repealing Sec. 4495, which distinctly provides for the marking of the names of steam vessels on the pilot house, and lake vessel owners will be warranted in complying with the provisions of the law when repairs are being made during the spring and summer, as it is provided that the changes may be made within the year 1891. The recent International Marine Conference recommended the rule followed in this law, and it is expected that the recommendation of the conference will be adopted by all nations. Another reason for the passage of the act is that under the old law vessel owners were not at liberty to consult their taste in marking their vessels' names. Many of them desired to put on carved letters but were prevented by the statute 4178, which provided for painting the name on the stern. The steamboat law permits of the name on the pilot house being carved, or ornamented. All vessels will now have the same privilege.

The circular in question also calls attention to a load line law for sea going vessels. The owner marks the limit of draught.

The Buffalo Organization—Plans for a Late Opening.

Buffalo vessel interests are now united in an organization similar to the Cleveland Vessel Owners' Association. The organization will be a local one, working irrespective of the Lake Carriers' Association. Officers elected Wednesday are: Frank Perew, president; Thomas Maytham, vice-president; Charles H. Keep, secretary; James Ash, treasurer. The executive committee is made up of the president and Messrs. P. P. Miller, E. T. Evans, John Rice and J. J. H. Brown. The new association, alike to all others on the lakes, is ready to take action with regard to delaying the opening of navigation until May 1 or 15 and will act in harmony with the Cleveland Vessel Owners' Association in this matter. As the Cleveland ore dealers have all expressed a desire to the committee calling upon them that the opening be delayed it is very probable that the plan of holding a general convention will result in some decided action being taken.

F. W. Gilcher is the name of the big steel steamer for J. C. Gilchrist and others, now nearing completion at the yard of the Cleveland Ship Building Company. Mr. F. W. Gilcher, for whom the boat is named, is one of the leading citizens of Sandusky and is largely interested in the Gilchrist fleet.

Through the efforts of Mr. W. E. Curtis the beneficial results of the Pan-American Conference are given wide publicity. Mr. Curtis' latest production is a "Hand Book of the American Republics."

F. W. Fletcher is the name of the steamer recently launched from Holland's Marine City yard for Recor Bros. & Co., of St. Clair.

Light-House Officers.

EDITORS MARINE REVIEW: Permit me to correct an inadvertance in your issue of the 5th at the bottom of page 3. The light-ships to be established at Simmon's reef, White shoal and Gray's reef, will not be "in my charge" either during construction or later. Each light-house district has two local officers, viz, the inspector, a naval officer and the engineer, an engineer officer of the army. In some cases one engineer acts for two adjacent districts. Each officer has his own special functions, and between the two the needs of the light-house establishment are provided for. In case of the diasability of either, the other, so far as practicable, acts for him. The engineer is charged with the construction and repair of all the fixed aids to navigation, e. g., light-houses, fog signals, day beacons, etc. The inspector has charge of the construction and repair of the floating aids, e. g., buoys and light-ships. He also attends to the supplying of the stations with coal, oil, etc., to their proper care and maintenance, and the discipline of the keepers. For the establishment of new aids, or the modification of existing ones, other than buoys, the practice and regulations of the board require the district officers to consult and submit a joint report. The three light-ships therefore will be constructed, equipped, stationed and maintained under direction, not of the engineer, but of the inspector of the Ninth, Lake Michigan, light-house district. The establishment of these ships is the result of the approval of the light-house board of a recommendation by Commander Clark, inspector of the Ninth district, and myself, in a special joint report under date of March 5, 1890, which was accompanied by a memorandum setting forth in detail the arguments in favor of using the Simmon's reef light station appropriation of $60,000 for all three stations, suggesting the general design and dimensions of the vessels, furnishing data as to cost of their construction and maintenance and other particulars. The gas buoys for the lakes were also recommended by Capt. Clark and me in the same report of March 5, 1890, and again in a special joint report dated July 21, 1890, with which was also furnished certain details of cost, etc, which had, with much courtesy, been supplied by the Canadian minister of marine and the engineer of the Canadian light-house service.

Respectfully,
WILLIAM LUDLOW, Light-house Engineer.

General Move Toward Reducing Expenses.

Important meetings of the Cleveland Vessel Owners' Association were held on Monday and Thursday of this week, the object being to reduce expenses for the coming season in every possible direction. The association began with wages and made reductions as shown in the following table which compares the card of May last year with that established for the opening of the coming season:

ON STEAMERS:—	PER MONTH FOR SEASON. MAY 1891.	MAY 1890.
1st Engineers,	$90 to 100	$95 to 115
2d "	55 to 65	65 to 75
1st Mates,	60 to 70	65 to 80
2d "	40 to 50	45 to 60
Cooks,	40 to 50	45 to 55
Helpers,	10 to 15	10 to 15
Firemen,	25 to 30	30 to 35
Wheelmen,	25 to 30	30 to 35
Lookout,	20 to 25	30 to 35
Deck Hands,	15	15
Oilers,	25 to 30	30 to 40
ON CONSORTS AND SAIL:—		
1st Mates,	$45 to 55	$50 to 65
2d "	30 to 40	35 to 45
Cooks,	20 to 30	30 to 35
Seamen,	25 to 30	30 to 35
Boy,	15	15

Although the association now maintains branch offices at Toledo, Ashtabula and Fairport and will be supported by a similar organization just perfected in Buffalo, it is the general opinion that the reduction in wages will cause trouble. The lake engineers, anticipating a reduction, held a meeting in Detroit last week. Delegates were present from every port on the lakes and it was freely admitted that the object of the meeting was to make preparations for meeting any attempt to cut down wages. John H. Galwey, of Detroit, president of the association, said: "We had been informed from reliable sources that a cut was contemplated, as well as a reduction in the working force of the engine room, and concluded that it would be wise to come together and decide upon some definite plan of action. We are anxious to simply hold our old wages, and will suffer no reduction from the wages paid last year. The engineers working on the steamers of the Atlantic and Pacific coasts are members of our association. We have been struggling for years to increase the engine room force, which virtually means a reduction in the hours of labor, and our protest will be as strong against cutting off the third man as the attempt to reduce the rates beyond those paid during the season of 1890. The vesselmen can afford to leave the wages as they have been, for the carrying trade has been good of late years, and prospects for the coming season do not appear as discouraging as they were a few weeks ago. The engineers will be deprived of a month's wages by the forced delay in the opening of navigation and will stand no cut in last season's rates."

The association also talked over a plan for uniting all owners in their desire to hold boats in port until May 1 or May 15 and a committee is now at work on arrangements for a general convention on this question to be held in Cleveland. Trimming charges at the iron ore shipping ports will also be reduced and made uniform, probably at 3 cents, by a united effort on the part of all owners engaged in the ore trade. At Escanaba and Marquette, 4 cents was charged last season while the Ashland rate was 3 cents. The plan for reducing these charges is to have all owners agree to suffer delay in port during first trips and have their crews do the trimming, paying extra for the work. There is little hope of securing a reduction in unloading charges from the lessees of the different Lake Erie docks, although a committee consisting of B. L. Pennington, M. A. Bradley and W. D. Rees, is still at work with that end in view. Mr. J. C. Gilchrist advanced the opinion that the vessel owners might secure some concessions from the underwriters at their meeting in Chicago on the 17th inst. and Mr. B. L. Pennington was delegated to go to Chicago and ask for a reduction of 20 instead of 10 per cent. on the season for vessels that do not sail during April and an extension of the season from Nov. 30 to Dec. 5.

Purchase of the Portage Lake Canals.

In reply to an inquiry by the MARINE REVIEW to the war department concerning the progress being made toward the purchase of the Portage lake canals the following was received from Brigadier General Casey, chief of engineers: "The canal companies have, through their attorneys, been informed that before action can be taken by the war department looking to compliance with the provisions of the river and harbor act, approved Sept. 19, 1890, it will be necessary that they transmit to the department deeds transferring the entire property to the United States with abstract of title in each case." This is the only difficulty now in the way of free navigation through these canals, and it is to be hoped that this will be removed and the purchase consummated before the opening of navigation. In case, however, the preparation of title deeds is delayed some provision should be made for the refunding of tolls or for suspension of payment of same.

During the year 1890, there were launched from the New England shipyards, according to the Bangor, (Me.), Industrial Journal, 207 vessels, aggregating 99,842 tons, of which 125 vessels, with a tonnage of 74,465, were built in Maine. Massachusetts came next, with 54 vessels of 13,603 tons, while Connecticut had 82 vessels, of 11,772 tons.

Schlesinger's Short History.

Ferdinand Schlesinger has within a very short period of time become famous in connection with Lake Superior ore business. He came to the United States from Germany in 1871 and a year later began business as a hardware dealer on Reed street, Milwaukee. He afterward manufactured flouring mill machinery and managed a small mill in the same city. His first mining venture was a failure. It was an attempt during the Gogebic craze of a few years ago to develop two properties of that range known as the Ironsides and Iron Prince. In 1886 he spent several months looking for a profitable deposit in the Keel Ridge mine, near Iron Mountain, Mich , where a few years previous a cave-in had buried several miners. This property was very small and has never amounted to anything. His purchase of the Dunn mine, near Crystal Falls, in the same year created some surprise, as this is one of the best non-Bessemer mines in the Lake Superior district and, although bought on an installment plan, was a paying investment. But it was not until he paid $2,000,000 for the big Chapin mine about two years ago that he became famous in connection with the phrase "Schlesinger syndicate." Another mine near Crystal Falls, which he bought shortly after the Chapin deal and which he still controls with the Dunn, was the Armenia, a good non-Bessemer producer, formerly owned by Angus Smith, of Milwaukee. The seven mines involved, in addition to the Chapin, in the recent financial trouble were the Florence, of Florence, Wis., the Iron River, of Stambaugh, Mich , and the Youngstown, of Crystal Falls, Mich., forming a first group, which was purchased from John Tod of Cleveland, and Youngstown, O., capitalists; and the Buffalo, South Buffalo, Queen and Prince of Wales, a second group at Negaunee, Mich. Schlesinger's interest in the Florence-Iron River properties, the first group of three mines, goes to the minority stockholders but preparations have been made for a consolidation of the four Negaunee mines through which he will retain control. Some idea of Schlesinger's undertaking in mining can be formed when it is known that the mines under his control last year shipped 1,625,380 gross tons of ore divided as follows: Chapin, 671,560 tons; Dunn, 156,963; Armenia, 26,649; Florence, 211,324; Youngstown, 38,345; Iron River, 153,853; South Buffalo, 141,292; Buffalo, 89,117; Prince of Wales, 27,763; Queen, 108,494. When all of the mines are in full operation they furnish employment for about 5,000 men.

The Milwaukee Evening Wisconsin says of the railway and dock project which had most to do with embarrassing the mines: "The Escanaba, Iron Mountain and Western Railway was projected to run from Escanaba to Crystal Falls and Iron River, on the Menominee range, and from Escanaba north to Negaunee and Ishpeming, on the Marquette range. The road is now built from Escanaba to Iron Mountain, a distance of fifty-four miles, and is nearly completed from Iron Mountain to Florence, a further distance of fourteen miles. It was planned essentially as an ore road, and from Crystal Falls spurs were to be built to the Dunn and Armenia mines. The new owners will not build the balance of the road, at least at present. The ore dock at Escanaba will be the largest single dock in existence, and will have a storage capacity of 50,000 tons. The disbursements on account of the railroad, up to date, amount to nearly $1,000,000, and the sum of $80,000 is all that has been realized from bonds. This means that the syndicate mines, and other sources, principally the mines, have been drawn upon for almost a million dollars, all within a year. Mr. Schlesinger's idea was to bond the road at $20,000 a mile, so that the bonds on 100 miles, which is about the length of the Menominee range branch as proposed, would be $2,000,000, and $4,000,000 on 200 miles, which would be about the length of the whole system were the Negaunee branch constructed. The road built, or nearly built, extends from Escanaba to Florence, a distance of sixty-eight miles. The amount of bonds actually issued is between $600,000 and $700,000, but they have not been sold. They were placed in the hands of a broker, who advanced $80,000 upon them, the understanding being that he was to sell the bonds at par and pay over to the railroad company the whole amount, less his commission and the sum of $80,000 advanced by him. But the money market began to tighten then and, it was found almost impossible to dispose of any kind of securities. The unsold Schlesinger railway bonds remained in the hands of the broker, and the earnings of the mines, which have proven very profitable, were devoted to paying for the railroad."

Iron Mining.

VALUE OF LEADING STOCKS.

Quoted by Chas. H. Potter & Co., No. 104 Superior St.

Stocks.	Par Value.	Bid.	Asked.
Cleveland Iron Mining Company	$ 25 00	$ 16 00	$ 18 00
Champion Iron Company	25 00	90 00	100 00
Chandler Iron Company	25 00	39 00	40 00
Chicago and Minnesota Ore Company	100 00	.....	110 00
Iron Cliffs Iron Company	50 00	.....	125 00
Jackson Iron Company	25 00	90 00	100 00
Lake Superior Iron Company	25 00	65 00	68 00
Minnesota Iron Company	100 00	70 00	80 00
Pittsburg Lake Angeline Iron Co	25 00	145 00	.....
Republic Iron Company	25 00	27 00	29 00
Michigamme	25 00	8 50	10 00

With a reduction in the out-put of the big mines little is heard of new properties, although there is still some exploring carried on in Minnesota where the Mesaba range shows some new properties. The Mountain Range Iron Company has uncovered the ore body for a length of 700 feet and a width of from 60 to 75 feet. Shafts have been sunk 40 and 50 feet in ore. At the Buckeye mine, on this range, a shaft has gone down 190 feet, of which 155 feet is in ore, said to be 66 per cent. metallic iron, and the company has contracted with a Duluth machinery builder for a full hoisting and drilling plant of large capacity. Surveys are now being made to this mine by the Duluth & Winnipeg Railway Company, and a line 12 miles from the main road is to be built as soon as spring opens.

Iron Ore, of Ishpeming, furnishes a few items of interest regarding the mines of that district. The Barnum, one of the properties of the ron Cliffs Company, was closed down last week. This mine has been worked since 1868 and has produced 815,000 tons of good ore. Its lenses, have, however, been wrought to nearly their full limit, and there is little to expect in the way of a profit for future operation, in view of present prices offered for ore. A lengthy review of the condition of the property of the Winthrop Iron Company, controlled by M. A. Hanna & Co., of Cleveland, and Frederick Braastad, of Ishpeming, presents a good showing. At present about 175 men are at work and the stock piles of the Winthrop and Mitchell—the latter a lease from the Lake Angeline—contain about 38,000 tons. Work has been resumed at the east end of the Lake Angeline property where it was discontinued last fall, but the force is not as large as at that time. This portion of the company's possessions is really a prospect as yet, but the purity of the ore caused the resumption of work. The Lake Superior company is piling up ore at a wonderful rate with a full force of men at work. The new shaft of this company near Lake Angeline is a promising one. The ore is of Bessemer grade, giving better than 62 per cent. in metallic iron and shows about .030 in phosphorus.

Two important finds are reported from Iron Mountain, Mich. One is in what is known as the Kelly property, a mile square, controlled by John B. Weimer, where a shaft has been sunk 102 feet, and is bottomed in an excellent quality of soft blue bessemer ore assaying 62 per cent. in metallic iron, and very low in phosphorus. The other find is a magnetic one. Dr. Crowell has sunk a drill hole 400 feet, just south of the old Quinnesec mine and has pierced 34 feet of magnetic ore. This property has both the soft ore and the magnetic veins. The formation is thought to be that of the Chapin.

There is little of interest from new properties on the Gogebic range. At the Colby 150 men were laid off last week and there is now but about 400 men at work. A new vein of ore 23 feet in width and north of any of the former workings was struck at the Sunday Lake mine The Metropolitan Land and Iron Company is doing nothing now at the First National where work had been carried on for more than two years. Last year there was taken from this mine a few hundred tons of fine manganese ore. Only the pumps were removed and work may be resumed later.

Michigan newspapers and the state legislature are still discussing the Doran bill which provides for a state tax of 20 cents a ton on iron ore. It is not at all probable that such a bill will pass the assemby, but it would be well for owners of Michigan mines to look to their interests. Some of the newspapers talk of taxing railways and mines on a basis with all other property.

Up to the end of 1889 one steamer only—the City of Paris—had run from Queenstown to New York at the rate of 20 knots an hour, but at the close of 1890 four steamers had accomplished this feat.

What Conservatives will do for Kingston.

Special Correspondence to the MARINE REVIEW.

KINGSTON, ONT., March 12.—The elections are over, and the party which is opposed to unrestricted reciprocity with the United States has been triumphant, which means Canada will remain under the old flag. Sir John Macdonald was opposed in this city by Mr. A. Gunn, who is president of the Kingston and Montreal Forwarding company, and a very popular citizen, but his policy was too heavy a load for him to carry to victory. One of the cries which hurt him most was that the company of which he is president was doing its utmost to have grain consigned to it transhipped at Ogdensburg instead of at Portsmouth, which is a suburb of Kingston and contains about 1,500 people,many of whom are employed on the wharves and boats. If Portsmouth was injured Kingston would be also. On the other hand, Sir John's friends claimed that their policy was to keep the transhipping here and to increase the facilities in the way of an elevator, etc. The result was that Mr. Gunn was defeated. It is now understood that the Conservative government will look to the marine interests at once and encourage the erection of an elevator here as soon as possible, probably next season. Certainly, the present process of transhipping, by barges alone, will have to be improved on if the companies desire to keep abreast of the times. Not that there is anything radically wrong, but if American vessels know that they can go to Ogdensburg and be sure of being lightened immediately on getting there, they will prefer going to that place to coming here and depending on the presence of empty barges. Kingston must have have an elevator.

An effort will be made early in the spring to start a branch of the Lake Seaman's Union here. This is the result of the decision of that body to affiliate with the internation union. In the case of a strike, sailors think they would then be better looked after than otherwise.

The tug Myra, owned by the Ogdensburg Coal and Towing Company, and which was sunk by the Rathesay, will receive a new boiler this spring. Capt. J. J. Martin will again be master of her. Capt. Ed. Beaupre, recently appointed manager of the Troy and Hudson River Steamboat Company's boats, has already made a change that is causing comment. In future no liquor will be allowed on the boats.

Quite a number of masters and mates have already been examined by Capt. Thos. Donnelly. Not many situations have been secured, however, and it looks as if owners will have the pick of many good men.

All the boats belonging to the Thousand Island Steamboat Company will be put in excellent trim. Each one will fly a large flag with the letter "F," the first letter in the name of the owners, Folger, on it. This will distinguish the boats from the numerous other steamers on the river. All the officers will be uniformed and the steamer Jessie Bain has been added to the Company's fleet, and about $10,000 will be expended on her. Her commander will be Capt. Andrew Miller.

The ice has still a firm hold in the harbor, therefore owners have not even thought about fitting out. Mariners expect a late opening of navigation in this section. It is very flat in marine circles, the result of the elections. Some owners did not care to charter until they found how the contest would go. Free trade would make quite a difference, but it appears that is now out of the question.

Wheeler Re-organization—Mining Stock Wanted.

Special Correspondence to the MARINE REVIEW.

WEST BAY CITY, Mich., March 12.—F. W. Wheeler has returned from Washington, where his term as congressman from the Tenth district of Michigan has ended. It is understood that there will be a re-organization of the Wheeler ship building company ere long. Mr.Wheeler says that before any new work is taken up the entire plant will be closed down, if only for a day, and the entire working force, and methods of working re-organized. This is in addition to the prospective re-organization of the company.

Capt. James Davidson, in reply to a question as to what his yard would do after the present work was completed, said: "We shall keep busy at something all summer. Next winter is almost too far ahead for us to talk about at present, but I think we will have something on hand then." He is thinking seriously of purchasing a large amount of mining stock, and thus securing business for the Davidson Transportation Company's line of boats. A transportation company purchasing iron mines in order to furnish something for their vessels to do is a reversal of the general order of business.

Fairport's Elevator—Ore Space Equal to Last Spring.

Special Correspondence to the MARINE REVIEW.

FAIRPORT, O., March 12.—From present indications the new elevator at this port will be ready for business at the opening of navigation and it certainly will be i the movement of vessels is postponed until May as is now proposed. The general understanding is that Duluth grain alone will be handled, and so far as can be learned there is no basis for the statement that the McDougall craft will handle the grain, no contracts having been made as yet with any one. The warehouses on the same side of the river are being pushed to completion rapidly and promise to be as convenient and commodious as vessel owners and shippers could ask. It is understood that they will be controlled by the same company that will operate the elevator.

Ore shipments from the harbor have been brisk recently and considerable dock space is being cleaned up daily. If the movement continues, Fairport will have on the opening almost as much space for ore as she had last year, and possibly more. Winter shipments have been above the average while it is said that all other ports have fallen far below their accustomed figures.

A ship chandlery concern with a capital of $25,000 is the latest indication of the harbor enterprise. Such an institution has long been needed here. A new building 100x35 feet has been erected in addition to the warehouses and the new concern, which will be known as the Marine Supply Company, promises to be as successful as the earlier and more extensive enterprises.

Siberia-Ohio Collision—Vessel Sales.

Special Correspondence to the MARINE REVIEW.

DETROIT, MICH , March 12.—The Siberia-Ohio collision case now on trial in the United States district court in this city, is attracting unusual attention, the court room being daily filled with spectato s, the majority being mariners or otherwise interested in marine business. Tuesday and Wednesday of this week Capt. Mack, of Cleveand, gave expert testimony in the case. The captain's evidence was singularly clear and comprehensive, and such as might be expected from the experienced, cool-head, intelligent navigator. I wish the space at my disposal was such as to admit of giving an extended report of this important trial.

Several sales of vessel property have been made here during the past week, among them being the steambarges H. S. Pickands and Salina and towbarges Keepsake and Shiawassee. These were sold under mortgage foreclosure, and were all bid in by the mortgagee, C. L. Ortmann. On Tuesday of this week, the steambarge Sachem was also sold under foreclosure and was purchased by Frank M.Thompson, of Detroit, for $37,000, subject to indebtedness of about $3,000. The Sachem was rated A1* by the Inland Lloyde last year and valued at $65,000.

Capt. S. B. Grummond has bought the Pridgeon tugs Crusader and Sweepstakes—price for the two boats $25,000. Capt. Grummond's fleet of tugs is now the greatest in number ever under one control, and includes many of the most powerful boats of that class on the lakes.

The old Eighth Ohio burned to the waters edge at Sandwich a few nights since. She came out as a passanger steamer in 1868. It has been a long time since she made any money. If more such old hulks were out of existence it would be better for the maritime community.

George Elsey, Jr., who has been in Parker & Millen's office the past year, has formed a partnership with Joseph King, a well known former steamboat clerk. The new firm will conduct a general vessel and insurance business. They will also manage the well known lake tugs Balize, Gladiator, Charlton and Onaping. Probably no other four tugs on the lakes will come out this season in as efficient condition as the foregoing. The Charlton is being provided with a new double compound engine, the same size as those in the Champion. The Onaping receives a new steel boiler. The other two boats require no repairs.

Buffalo's Chances in Organization.

Special Correspondence to the MARINE REVIEW.

BUFFALO, N. Y., March 12.—Once more the Buffalo owners have formed an association for action on questions of local interest, which can not be considered by the Lake Carriers' Association, a general organization. It is the desire of the Buffalo men to emulate the example set by the owners of Cleveland. They have a hard job before them, and although your correspondent hopes they will be successfnl, he fears that they will make little headway in the Cleveland direction. Several years ago the local owners organized for the purpose of defeating the attempt by coal shippers to make vessels carry gross tons. Outside owners, who controlled more interested tonnage than they, stood by them, and the coal men were defeated. Satisfied with what they had done, or rather had helped to be done, the Buffalo association was neglected and soon expired.

There is as good a reason now why owners should work together as there was on the occassion noted above. It is certain that an early opening would make the ensuing season unsatisfactory if not wholly unprofitable. Hence the time of beginning operations is of vital importance. A general start on May 15 would be better for owners than one on May 1 or May 5. The saving in insurance and running expenses from April 1 to May 15 probably would represent the profits on most vessels for the whole season. To assist in bringing about a late beginning the Buffalo owners have organized again. It is claimed that their intention goes further—that they will pull together as Cleveland has done. All the local owners have not joined the association yet, but it is hoped to enlist those still on the outside. If a general agreement be made for a late start, the Buffalo

owners will stick to it as long as others may, but no longer. Several of those favoring the movement believe it will be impossible to carry it out, so large and varied are the interests involved. The line managers undoubtedly would hold off unless ordered by their superiors to run their steamers for the purpose of making rail connections. A break of an agreement by a single vessel would result in a general collapse.

Why Buffalo owners can not emulate Cleveland is quite clear. Outside of the line steamers, there are few heavy owners here from whom practical business methods may be expected. Cleveland's owners as a whole are men of capacity and of experience in business affairs. They take hold of things in a business-like way, and when there is need for anything to be done they do it. The Cleveland owners, moreover, are much more numerous than those of Buffalo. Drop the line steamers, and the tonnage of Buffalo is very small compared to Cleveland.

Good Capt. Dobbins has been working hard to interest the masters of the local lodge in the flag signal system. His enthusiasm and his agreeable way of putting things naturally has made a favorable impression. He has indeed convinced most of his hearers that this signal system is a very nice thing, and until he is out of sight many of them acknowledge its usefulness. It is clear, however, that the good captain is making very little real headway in the matter. The masters grant that the signal system is a fine thing to play with, but the majority argue that it is of no necessity on the lakes. Before one could hunt through his book, run up three or five or eight flags and get a reply of as many, his boat would be miles away. Besides, it is easier and better to run into some near by port when anything is amiss, than to fool away time over the flags. The system is well enough for ocean crafts, say these skippers, but it would be a detriment on the lakes.

The incorporation of the Maytham Tug Company, with headquarters at Lancaster, a small town hard by, brings up the question of taxation on floating property. As far as can be discovered, no taxes of consequence are paid on such property standing in the names of individuals resident in this city. The law provides that only the amount of such property over the just debts owing against it is liable for taxation, and this gives owners a hole to crawl through. Very little floating property subject to taxes therefore can be found by the easy-going assessors. When a corporation of such owners is formed, and papers are filed with the authorities, giving the capital stock, then the assessors can find something to tax, and then it is that excuse is found by the associated owners for snaking their head office into some country place where the taxes are very light. Arrangements can be made with the town authority to get a low valuation on the property, because the locating there is just so much gain to the place, and the incorporators can go where the most favorable terms are made. Maytham has made lots of money tugging at Buffalo, under Buffalo government and protection, and it certainly seems strange that he should create a nominal office in Lancaster to save about 50 per cent. of taxes. The International Ferry Company, which gets a big revenue altogether from Buffalo people, and of which Capt. Maytham is president, also makes Lancaster its headquarters. They are given free use of a dock at Buffalo, and constant police protection during the excursion season,and yet they refuse to pay their just portion of the expense of keeping up the city government. This is all wrong.

But about all the steamboat corporations, whose principal business is at Buffalo, do precisely the same thing. Their general managers and subordinates are here, and their offices perforce are here, but their nominal headquarters are in small outside places. They get the benefit of our fire department and our police department, and use the foot of public streets as docks without so much as saying by your leave, but dodge the payment of what it costs to furnish them such advantages. There is no good reason why vessel property should be exempt from fair taxation, and there is no good reason why real estate, whether free or heavily encumbered, should be assessed on its full value at more than just rates that the other class of property may go nearly clear. Corporations cannot well be reached under the law, but individual owners of vessel property ought to be assessed under some just and equitable plan. These remarks undoubtedly apply to all other lake cities as pointedly as to Buffalo.

Masters and Engineers.

Following are some recent appointments of masters and engineers, in addition to a long list printed last week :

B. L. Pennington, Cleveland, O.: Steamers—C. B. Lockwood, Capt. Richard Jollie, J. F. Williams, engineer; George Spencer, Capt. William Cowin, U. L. Smith, engineer. Schooner—B. L. Pennington, Capt. C. W. Lockwood.

Detroit and Cleveland Steam Navigation Company, Detroit, Mich.: Steamers—City of Cleveland, Capt. Dugald McLaughlin, Edward Pickle, engineer; City of Detroit, (new), Capt. Duncan A. McLaughlin, W. S. Huff, engineer; City of Detroit, (old), Capt. Duncan McLaughlin, James Middleton, engineer; City of Alpena, Capt. A. J. McKay, John Jones, engineer; City of Mackinaw, Capt. M. Lightboy, William Kenyon, engineer.

Ward Line, Detroit, Mich.: Steamers—John M. Nicol, Capt. Albert Stewart, Joseph Hayes, engineer; Wm. H. Stevens, Capt. John Tyrney, Geo. B. Milne, engineer; Eber Ward, Capt. Wm. McLean, Jacob Pospeshill, engineer; John V. Moran, Capt. Wm. H. Campu, Henry Lawless, engineer; James Fisk, Jr., Capt. Louis Elliott, Geo. Stemler, engineer; Samuel F. Hodge, Capt. P. A. McKinnon, Elmer Tucker, engineer.

Goodrich Transportation Company, Chicago, Ill.: Steamers—Virginia, Capt.B.Sweeney; Atlanta, Capt.A.W.Rosman, G.P.Roth, engineer; Indiana, Capt. E. W. Dorcey, Ray Flint, engineer; Racine, Capt. John M. Gee, J. Covyeow, engineer; Ludington, Capt. John Raleigh, J. Buschman, engineer; Menominee, Capt. H. E. Stines, G. Griebling, engineer; Chicago, Capt. George Wittey, F. Neider, engineer; Sheboygan, Capt. John Wilson, J. Tomey, engineer; Muskegon, Capt. A. Gallagher, T. Dorey, engineer.

J. C. Gilchrist, of Moore, Bartow & Gilchrist, Cleveland, O.: Steamers —W. H. Gilcher, Capt. L. H. Weeks; John Craig, Capt. J. L. Weeks; R. E. Schuck, Capt. George Bell; J. C. Gilchrist, Capt. F. C. Rae; Cumberland, Capt. J. C. Garry; Columbia, Capt. C. J. Gunderson; Oregon, Olof Olsen; Waverly, no appointment. Schooners—H. D. Alverson, Capt, H. Gunderson; B. F. Bruce, Capt. Theo. Peterson; W. S. Crosthwaite, Capt. Fred. Goodale; S. H. Foster, Capt. O. Longhway; Verona, no appointment; Gerrett Smith, Capt. P. Duroy.

Sales of Vessel Property.

The steamer C. H. Starke, owned by the Milwaukee Shipyard Company, was sold to Stevenson & Hoff, Detroit, for $23,000. She is a good lumber carrier, measures 276 tons, rates A1½ and has an insurance valuation of $30,000.

The steamer Douglas has been transferred by Robert and Lewis McElroy to the McElroy Transportation Company for $20,000, at Milwaukee.

A half interest in the schooner Morning Star, recently sold by A. H. Warren, Chicago, to Walter S. Johnson, Milwaukee, for $5,500, has been sold to Capt. C. H. Ellis. She will tow behind the George T. Burroughs.

John Johnston and Jonas Hanson bought the schooner C. Harrison at marshal's sale for $1,525, to satisfy claims held by the Milwaukee Shipyard Company against the vessel.

Capt. M. Christie, of Toledo, has purchased Capt. C. S. Geel's interest in the steamer H. D. Coffinberry and will sail her this season. The sale was made through Mitchell & Co., of Cleveland.

The schooner Ruby has been sold by Capt. John McKay to Capt. Hugh Kennedy, of Waukegan, for $1,030. Capt. McKay, Milwaukee, purchased the schooner Hattie Earl at United States Marshal's sale for $500.

Chicago parties have sold the schooner Lavinda to Capt. Patrick Kearns for $1,850. The Lavinda measures 119 tons, and is twenty-one years old.

Following are some sales reported from Detroit: Schooner D. P. Dobbins, of Detroit, Sydenham Scott sold one-eighth interest to A. C. Smith, of Detroit, $1,250. Also one-eighth in the propeller Colwell, same to same, $2,000.

Schooner William Young, D. B. Millen sold one-third each to J. R. Nostrand, and J. J. McLain, of Detroit, $3,000.

Schooner Genessee Chief, O. M. Cash, of Algonac, sold one-half to H. G. Hutchins and A. H. Shafer, of Detroit, $225.

Steam barge Swallow, of Au Sable, E. K. Roberts, of Lorain, O., sold one-third to Carlos Libert and others, of Au Sable, $4,500. James Innes & Co., of Au Sable, sold one-third of same to same, $4,500. Penoyer Bros., of Au Sable, sold one-third of same to same, $4,500.

Schooner R. J. Gibbs, William G. Richards, of East Tawas, sold one-half to H. H. Pope, of New Baltimore, $1,146.

Schooner Owasco, sold by John W. Squires, of Marine City, to J. M. Jones, Sr., and others, of Detroit, $4,000.

Following are records of transfers of vessel property made at the Milwaukee custom house:—Schooner Z. G. Simmons, Jonas S. Hanson to Andrew Samuelson, Milwaukee, one-half, $975; schooner Jesse Winter, Halow Williamson, of Racine, to Barton Moss, of Bucklee, Waupaca county, Wis., $1,100; schooner Willard A. Smith, Herman Krones to Joseph Miller, of Milwaukee, one half, $150; schooner Odd Fellow, Theodore Plathner, of Milwaukee, and S. T. Lawson, of Washington island, to Henry Meyers, of Milwaukee, the whole, $1,800; schooner Jennie Weaver, J. H. Pereue, of Frankfort, to Abraham Anderson, of Racine, three-fourths, $1,600; tug Welcome, G, Muntinga to E. A. Sonnemann, of Sheboygan, one-half, $900.

Lake vessel owners are of course interested in any changes in United States judges. The new appellate court law causes members of the Milwaukee bar to again put forward ex-Judge Dyer, who resigned a district judgeship on account of the meager salary. The appellate circuit for which ex-Judge Dyer is proposed comprises Illinois, Indiana and Wisconsin. It is thought that Judge Blodgett, of Chicago, is not likely to get the appointment for this circuit as he is already near the age of retirement.

MARINE REVIEW.

DEVOTED TO THE LAKE MARINE AND KINDRED INTERESTS.

JOHN M. MULROONEY, ... } PROPRIETORS.
F. M. BARTON, ... }

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The books of the United States treasury department contain the names of 3,510 vessels, measuring 1,063,063.90 tons in the lake trade. In classification of this fleet the lakes have more steamboats of 1,000 to 2,500 tons than the combined ownership of this class of vessels in all other sections of the country. The classification is as follows:

Class.	Number.	Tonnage.
Steam vessels	1,527	652,922.25
Sailing vessels	1,272	328,655.96
Canal boats	657	67,574.90
Barges	54	13,910.09
Total	3,510	1,063,063.90

According to the report of William W. Bates, United States commissioner of navigation, 46 per cent. of the new tonnage of the country was built on the lakes during 1889. This is a percentage greater than the work of the Atlantic coast and western rivers combined, and almost equal to the whole work on the Atlantic and Pacific coast. In 1890 the tonnage built on the lakes is but very little less than that built on the Atlantic and Gulf coasts. Tonnage built on the lakes during the past five years was as follows:

	No. of boats.	Net Tonnage.
1886	85	20,400.54
1887	152	56,488.32
1888	222	101,102.87
1889	225	107,080.30
1890	218	108,515.00
Total	902	393,597.03

Annual tonnage entries and clearances of the great seaports of the world, for 1889: New York, 11,051,236 tons; all seaports in the United States, 26,983,315 tons; Liverpool, 14,175,200 tons; London, 19,245,417 tons.

St. Mary's Falls and Suez canal traffic: Number of boats through St. Mary's Falls canal in 1890, 234 days of navigation, 10,557; tonnage, net registered, 8,454,425. Number of boats through Suez canal during 1889, full year, 3,425; tonnage, net registered, 6,783,187.

Tonnage passing through Detroit river during 234 days of navigation in 1889, amounted to **36,203,606** *tons. Ten million tons more than the entries and clearances of all the seaports in the United States, and three million tons more than the combined foreign and coastwise shipping of Liverpool and London.*

Entered at Cleveland Post Office as Second-class Mail Matter.

IN another part of this issue will be found a statement of bituminous coal shipments from Lake Erie ports during the year 1890, which proves conclusively that the estimate of the census office on the total lake movement of coal of all kinds during 1889, in a bulletin issued recently, is about 500,000 tons wide of the mark. The figures on soft coal show a total movement during 1890 of 3,107,816 tons. The statement is thoroughly reliable as it was prepared by the Pittsburgh Coal Shippers Association and represents reports from every railway company engaged in transporting coal from the mines to Lake Erie docks. The coal shippers, unlike the census office, did not depend upon the customs officials for incomplete reports. They had the benefit of experience in that regard and, as a result, they present accurate data from the railways. The census office might have done likewise. Now, as to the census figures for 1889: The total lake movement of coal of all kinds is given in Table 1 of the bulletin "Cargo Tonnage on the Great Lakes for the Season of 1889" as 6,105,799 tons. The aggregate shipments of hard coal from Buffalo in 1889 was but 2,156,670 tons, according to the census figures which are reliable as far as that port is concerned. Accepting also the census figures of the movement on Lake Ontario, 552,098 tons from Oswego, Sodus and Charlotte, and adding Erie shipments of anthracite coal to this we have a total hard coal movement on the entire lakes of 3,058,768 tons. It is in the statement of soft coal shipments from Lake Erie ports, however, that the census office is in error in accepting the inaccurate custom house figures, as a boat may clear light from a port at the lower end of the lake and take on a cargo at Cleveland or some other intermediate port without making any record of the same. Through the same source from which the soft coal shipments for 1890 were secured it is learned that in 1889 the soft coal shipments were in round numbers 2,500,000 tons. This amount added to hard coal shipments of 3,058,768 tons would give a total of 5,558,768 tons as the movement of both hard and soft coal on the entire chain of lakes in 1889, as against a total in the census bulletin of 6,105,790 tons.

It has been said that the MARINE REVIEW'S criticism of the census figures is based on disappointment in the total tonnage movement of the lakes. This is not true, as shown by the foregoing. Data that must not be torn to pieces by accompanying paragraphs attempting to explain away its inaccuricies is what is sought by criticising the bulletin. Professor Adams, of Michigan, to whom the work was entrusted, had been accustomed, in his position of statistician of the Inter-State Commerce Commission to dealing with railway companies, whose officers always have at hand figures regarding tonnage movement down to the minutest detail and are compelled by law to make them public. He did not find matters so well prepared for him among lake vessel owners but there was no fatal opposition to the first plan, which was the only one, that of collecting the statistics from the vessel owners. If it was done on the coast why could it not be done on the lakes equally as well. If Mr. Adams' cumbersome schedules had been reduced to a series of questions fitting the situation the result would have met with approval from all concerned. He found it convenient, however, to unload the work upon Mr. Keep, of the Lake Carriers' Association, and accept custom house figures that are in many cases no better than those regarding the coal movement.

THE moderate sum required—about $3,000,000—for the deepening of the connecting waterways of the lakes, so as to provide a twenty-foot channel between Duluth, Chicago and Buffalo, caused a general expression of surprise at the recent meeting of the Lake Carriers' Association in Buffalo. Gen. Poe's estimate can be relied upon in this as in all other great works with which he has been connected, however, and the great effort of the lake vessel owners from this time on will be to secure the improvement. The demand should be made with the opening of the next congress.

THE retirement of Cannon, of Illinois, from the lower house of congress and from the chairmanship of the appropriation committee will not be regretted by men of lake interests. A commerce so important as that of the lakes, national in its scope, should not be sneered at when its requirements from the government are presented in Washington.

A Great Navy.

The United States will within the next five years have one of the finest navies in the world in point of effectiveness. Thirty millions in all have been appropriated for the navy department this year. The appropriation of $18,000,000 made at the session of congress just closed will be employed in completing work already begun and building new ships. Three great battle ships are now being laid down. These will be the equal if not the superior of anything now existing in the English navy. Although they will be only 10,000 tonnage, they will be superior in batteries carried to the ships recently launched by the queen, which have a tonnage of 14,500 tons.

It is often a matter of wonder how a marine engine attaining an efficiency greater than those on land, can be made in so simple a form and contain only one-half as many pieces. The answer is found mainly in the fact that the resistance to marine engines is constant and uniform, or nearly so, and they can, for this reason, dispense with speed-regulating gearing which causes most the complications in land engines. The governer, trip gearing cushioning apparatus, and so on, is what calls for so many pieces.—Industry, San Francisco.

Around the Lakes.

C. E. Mitchell & Bro., of Ludington, owners of several valuable dredges, will move to Port Huron.

Capt. Harry A. Cappelen, for many years a lake navigator, died in Milwaukee, Monday, aged 55 years.

Stewart Murray, the Lehigh line agent at Milwaukee, has been transferred to Chicago to take the place of P H. Fleming.

The schooner E. A. Nicholson has been chartered at Chicago for 50,000 bushels of wheat to Buffalo on private terms.

Steambarge J. H. Shrigley, owned by Barber & Scully, Dunkirk, was damaged $5,000 by fire at Buffalo. Insured for $25,000.

The Baltimore was the first boat to make the trip across Lake St. Clair this season, arriving at Marine City from Detroit, last Thursday.

Capt. Sam Bernier, of Life Saving Station No. 9, reports no ice at Whitefish point, or in that vicinity. He says that if vessels want to reach Lake Superior they will be able to do so early in April.

Mr. Ross, the weather authority at Sailors' encampment, says that he has not seen the ice as thin as it is this year for many winters, and that passage through the ice at Mud lake can be forced before April 10.

The barge Allegheny was chartered at Milwaukee for 45,000 bushels of rye to Buffalo at 2½ cents. Her barge spars remain to be put in, but provision has been made for them by the construction of boxes in the hold

The Maumee River Steamboat Company held their annual meeting in Toledo. The directors elected were: M. I. Wilcox, M. T. Huntley, F. N. Quale, George W. Bliss, and Capt. Al. Fitts. Officers, President, M. I. Wilcox; Vice-president, George W. Bliss; Secretary and Treasurer, F. N. Quale.

B. C. Church, manager of the Imperial flour mill at Duluth, is in Buffalo looking after the building of their big warehouse on the Tifft farm property. The house is to be 500 feet long and 90 feet wide, and will have storage for 50,000 barrels. It is expected that the building will be completed soon after the opening of navigation.

Major Stickney, United States Engineer at Buffalo, advertises for proposals for building an extension of about 500 feet to the breakwater at Buffalo. The bids will be opened on April 4, at 2 p.m. It is expected that about 2,000 feet of the old timber superstructure will be replaced with concrete blocks during the ensuing season.

Geo. Elsey, Jr., the well know tug manager, and Joseph King, have entered into partnership for the purpose of conducting a general towing and wrecking business and fire and marine insurance agency at Detroit They have the management of J. & T. Charlton's line of steam tugs Balize, Onaping and Charlton, also their own tug Gladiator. These tugs will also be equipped with complete wrecking outfits. The Onaping and Charlton being Canadian boats, enables them to do wrecking in Canadian waters.

A Detroit newspaper figures that the annual operating expenses of the Detroit and Cleveland Steam Navigation Company, with its five passenger boats valued in the aggregate above a million, is fully $400,000, about one-half of which goes to 350 employes. The other half is expended as follows: Fuel, $60,000; outfit, $40,000; food and stewards' supplies, $35,000; rents of terminal facilities, advertising, postage, etc., $68,000. The affairs of the corporation are closely guarded, but its profits of late are known to be large.

The manager of the Blind River Lumber Company at Toledo, calls attention to the item stating that the Scotia and and Blake had been chartered from Blind River, Georgian bay to Toledo, free on and off rail for $1.60 per thousand. He states that the off rail provision is incorrect and asks that equal publicity be given to the correction as was given the error. This on and off rail clause is being watched very closely and a mistake of this kind just now arouses the interest of lumber dealers on account of the recent action of the Saginaw valley vessel owners. The error in this case is excusable, as the Scotia and Blake have been chartered by Warner & Becker to bring 50,000 ties from Pike bay or Golden Valley, Georgian Bay, for $1.60 per thousand, free on and off rail. No doubt the two charters were mixed.

Work of the Ship Yards.

The steamer William F. Sauber, building in Wheeler's yard at Bay City, for Capt. John Mitchell and others, will be launched within a couple of weeks.

The capital stock of the Duluth and Superior Steamship Company has been increased to $200,000. The increase is for the purpose of building another ferry and establishing a line of tugs in connection with the ferry business.

Alfred Anderson is building for E. W. Brewster, at Manitowoc, a barge, to be finished at the opening of navigation, and to be used for the stone trade. She will be 120 feet long, 29 feet beam and 8 feet deep, with a capacity of 100 cords of stone.

Isaac Bearinger, of East Saginaw, purchased an iron steam yacht hull from David Bell, of Buffalo, N. Y, She is 91 feet water line, 15 feet beam and 7½ feet hold. He is having a fore and aft compound engine built, 12, 20 by 16, and a Roberts safety water tube boiler to carry 200 pound of steam.

The appropriation for a new revenue cutter to replace the Andrew Johnson on Lake Michigan was carried in the sundry civil bill to the last conference and was there shelved in order to reduce the appropriation. Nothing was said concerning this move and it was included with other appropriations published by the MARINE REVIEW.

The Goodrich line steamer Menominee has received new arches, new upper works, deck frames and deck, new railing on hurricane deck, and a new texas 18 by 20. The steamer Chicago has received new frames and ceiling, keelsons, deck frames and deck and new tamarack knees. The steamers Sheboygan, Muskegon and City of Racine also received repairs.

The tug Keystone, which is being built at Buffalo for the Keystone Lumber Company, of Ashland, will be one of the finest tow boats on fresh water. She has 92 feet keel and 19½ feet beam. Her engine is a fore and aft compound. The tug is being built entirely of steel with the exception of her deck and cabin fixtures, and will be finished in the latest and most approved manner.

The new propeller "Sailor Boy," which is in course of construction at Wheeler's ship yard, will be ready for business about the middle of April. She is 100 feet long over all, 22 feet beam and 5 feet 6 inches hold. The company will run her in connection with the "Post Boy," between Saginaw, Bay City and the beaches. The build of the "Sailor Boy" is different than that of any other river boat, having sponsers like the propeller Soo City, giving her more deck room. She will have seating capacity for 500 passengers. The seats are of the perforated and veneered kind and will soon reach Bay City from New York. The boat will cost about $10,000. She will be commanded by Capt. Paul Armstrong, and Eli Dawson will be the engineer.

Milwaukee's contributions to the lake fleet are receiving finishing touches. The Pueblo, the product of the Milwaukee Ship Yard Company, will be the handsomest steamer that has yet taken the name of a western city. She is 238 feet long, 36 feet beam and 20½ feet hold, and is steel strapped snd chorded, the main keelsons being sandwiched with a chord 16 inches wide and 1 inch thick. Her bow will be somewhat fuller than the Denver, but she will be trim as a yacht. She will have a Trout fore and aft compound, 23 and 46 by 40 and boilers from the Milwaukee Boiler Works. The Ferd. Schlesinger was launched, Saturday, with a full set of colors flying, the result of the generosity of the gentleman for whom she was named. Her keel is 308 feet, over all 328 feet, beam 42 feet and hold 22 feet. The chief feature is the water bottom. The pilot house and forward cabin are set back far enough to give room for two hatches forward. She will have Hodge engines and Milwaukee boilers and she is expected to carry 3,000 tons of ore. Davidson owns three-fourths and Wolf and Vance the remainder.

Notice to Mariners.

The light-house board gives notice that on March 30, a fog bell will be established at Alpena light station, entrance to Thunder bay river, Lake Huron. During thick or foggy weather the bell will be struck by machinery a single blow every ten seconds.

Excelsior Marine Benevolent Association.

OFFICERS OF THE GRAND LODGE—LYMAN HUNT, TREASURER.

The decision of James A. Dumont, supervising inspector general of steam vessels, with regard to the signal for working the engine strong, published in the last issue of the MARINE REVIEW, was a surprise to some steamboat captains who have been blowing four short whistles for the "strong" signal. Gen. Dumont says very plainly that the signal must be one long whistle or four bells and adds that the captain who blows four short whistles violates the law every time he does so. If he has no bell in his engine room he must blow a long whistle when he wants the engine worked strong. The Cleveland lodge discussed Gen. Dumont's decision at its last meeting and the legality of the electrical and telegraphic systems of signals between captain and engineer was brought into question. With one of these patented systems dials in the engine room and pilot house indicate the order. The supervising inspector general will be asked for an opinion regarding these devices.

Capt. Comstock talked informally at the rooms of the Chicago association last Monday, concerning Chicago's position in the list of important lake ports. He said that it was out of the direct line to the seaboard and was a railroad center, which was a detriment to independent freighting. Mrs. A. C. Meyers, World's Fair alternate, addressed the assembly concerning her efforts to secure an appropriation for a marine exhibit at the coming exposition, the which was an object of her visit to Washington. Another effort will be made as soon as congress meets again. In the meantime the matter will be presented to the state legislature. F. B. Higgie, secretary of the association has the sympathy of the members in the loss of his son, who had just attained his majority. Each officer of the association was presented with a badge which was worn during the session,

Mr. W. E. Leonard addressed the Port Huron lodge of the E. M. B. A., last Thursday, on the subject of "Sailors and the Sea." It was quite interesting and he was generously applauded. J. J. Stover, John Hutton and William Rattray were elected to full membership. The appearance of rooms in the Casselo block is being improved by the addition of ornaments and pictures from time to time.

The banquet and ball of the Cleveland lodge, Thursday evening, was a success in every way. Many of the leading owners were present and the guests included friends of the order from the different ports on Lake Erie. The hall was handsomely decorated with flowers and bunting from the ships in port. About 200 couples were seated at the banquet.

The Bay City lodge has planned a banquet for members and friends to take place on Monday evening next. It will be a fitting meeting before parting for the coming season and a grand time is assured. We are indebted to Secretary C. H. Weeks for an invitation to be present.

Capt. E. K. Porter was elected to membership in the Cleveland lodge at the last regular meeting.

Marine Engineers' Beneficial Association.

President John H. Galwey, of Detroit, arrived in Cleveland, today, Thursday, to consider with the engineers the reduction in wages announced by the Cleveland Vessel Owners' Association. The plans of the engineers with regard to the reduction are not given out but it is evident that they intend to show resistance.

Mr. F. B. Smith, who goes as chief engineer of the Pasadena this season, relates a strange experience with the government inspectors in New York last fall, which goes to show that, notwithstanding the fact that the lakes have more steam vessels of 1,000 to 2,500 tons than the combined tonnage of this class in all other parts of the country, the coast people are slow in being brought to a realization of the fact that the northwestern waterways are snperior to the coast in commerce and that the vessels are in every respect equal to the sea-going craft. Mr. Smith, who ranks among the best engineers on the lakes, and who has added a great deal of study to his practical knowledge of marine engines, was desirous of making a few trips on the coast and went to New York last fall with that end in view. He applied for a license to go to sea but was told by both supervising and local inspectors, who had refused to grant him an examination, that he could not have a license for a position as even second or third engineer. Mr. Smith was not in New York for the purpose of following the coast business but decided, after repeated refusals during a two week's stay in the metropolis, that he would make a test of the action of the inspectors, as he had already expressed a willingness to give up all effort if he could not pass any examination to which they might subject him. Their only excuse was that he had had no experience with salt water, although it is a fact that boats in the coasting trade use very little salt water. Finally he was informed by the local inspectors that they would grant him an examination if he succeeded in finding a position. This was quite a disadvantage to start with in search of a position but Mr. Smith found a place as assistant and passed the examination. After making a couple of trips, which was all he desired, Mr. Smith returned to Cleveland

In General.

Mr. Cassius P. Taylor, the new manager of the Ward Line, was in Cleveland during the past week.

Capt. William R. Clinton, of Detroit, a pioneer in the river ferry business, died, Thursday, in California.

E. G. Ashley and Capt. Freidrichs, represented Toledo marines at the first annual ball of the E. M. B. A., at Cleveland.

The Deseronto Navigation Company, of Picton, Ont., will build a side wheel steamer 160 feet long for the Picton-Trenton route.

E. T. Hitchcock, average adjuster of Buffalo, presents another neat bit of work in the adjustment of losses on the propeller Newburgh, occasioned by the breaking down of her engine off Cleveland last November.

The Canadian steamer Kathleen has been sold to Mr. Sheppard, of Waubashene, Ont., fot use on the Georgian bay. This steamer cost $22,000 three years ago, but Mr. Sheppard has bought her for about 50 per cent. off first cost.

Marine hospital authorities at Detroit will prosecute sailors who gain admission to the hospital under false pretenses. One man is already in the hands of the United States authorities for presenting a false affidavit to a government officer.

The Sailor Boy.

MASTER HARVEY BEESON.

The above is the illustration used on the cover of Beeson's Hand Book and Inland Marine Guide, which will be issued during the coming week. A 30x40 oil painting, by H. F. Sprague, of "The Sailor Boy," will be exhibited in Chicago, Buffalo and Cleveland and the book will, no doubt, have double the sale it did last year. This book and the MARINE REVIEW one year for $2.50. Order at once.

Affairs in Admiralty.

SOME LAKE CASES.

The last issue of the Federal Reporter contains several decisions in lake cases, among them that of Judge Ricks, of Cleveland, against the owners of the tug Niagara and the raft which ran into the schooner H. C. Richards, owned by Capt. C. E. Benham, and which was published in full by the MARINE REVIEW a short time ago. Another decision of importance was delivered a short time ago by Judge Blodgett in the district court at Chicago. It was in the case of Barker, a Chicago lumber dealer, against the propeller Swallow, a boat engaged in the lumber trade between Muskegon and Chicago. The libelants in this case were represented by Schuyler & Kremer, while the boat was represented by W. H. Condon. The Swallow started on a voyage with a cargo of lumber, part of which was piled on deck to the height of eight or ten feet, which was fully equal to the depth of the hold. A wind sprung up on her quarter, raising a sea that caused her to roll so heavily that she careened to port and hung there until the deck load on that side slid off, when she righted and rolled to starboard until the lumber on that side went overboard, leaving only that piled amidships. She then righted and rolled easier and made port safely. It was shown that the wind in question was only a twelve or fifteen mile breeze, and not a gale. The court held that the loss was not due to stress of weather, but to over-loading, and the vessel was held liable for the loss.

Still another case heard in Chicago, in which the same attorneys held similar positions, was that of the owners of the schooner Lookout against the schooner Myrtle. At about 1 o'clock of a clear morning, June 1, 1888, on Lake Michigan, the schooner Lookout, close hauled on the starboard tack and headed S. ½ W., sighted and was seen by the schooner Myrtle, headed N. by W. with the wind free. The Myrtle put her helm hard-a-port, and let go her main sheet, and swung six or seven points to starboard. When the vessels were five or six lengths apart, the Lookout starboarded and swung to port, until she was across the bows of the Myrtle, which struck her forward of the fore rigging. The court held that whether the vessels were approaching end on or on converging lines, the Lookout should not have starboarded, and the collision was chargeable to her fault. The court also held that it was negligence to allow the wheelsman of the Lookout to go below after the Myrtle was sighted, and to send her lookout to the wheel, leaving the captain, the only other man on deck, to perform the double duty of officer of the deck and lookout.

One of the federal court judges in New York handed down a decision a few days ago from which if would appear that in all cases where tows lay over in the connecting waters of the lakes on account of fog, the tow barges as well as the steamboat should sound a fog horn. It was a case where a tow of canal boats stretched abaft a tug about 800 or 1,000 feet in the Hudson river. The tug sounded the required fog signals, but there was no sound from any other part of the tow. A steamer coming down the river ran into and sank one of the canal boats. The canal boat, being an outside boat in the tow, was held to be in fault for not sounding a fog horn.

In addition to the steel tug nearly completed for Frank Gilchrist & Co., and which will be named Frank W., the Union Dry Dock Company, of Buffalo, have contracted to build a steel hull 100 feet long for a steamer to ply on Chautauqua Lake; also a steel yacht 100 feet long for the Oakfield Club of Buffalo, and a steel tug 100 feet long for the dock department of the city of New York, to have triple expansion engines and to be finely fitted up in every way. The latter is to be delivered in New York City by the Welland Canal route and St. Lawrence river.

Chicago seamen who have managed to maintain an organization on the lakes of late years, although the union at other ports has exerted little power, give out the information that they have decided to affilliate with the International Union. It is said that there are 132 local bodies on the lakes but this is probably a mistake. The international organization will at its next convention propose changes in the maritime laws of the United States and Canada. Amendments to the laws providing for properly qualified seamen and regulations regarding the "load line" will also be proposed.

CON. STARKE. JOS. WOLTER. AUG. RIEBOLDT.

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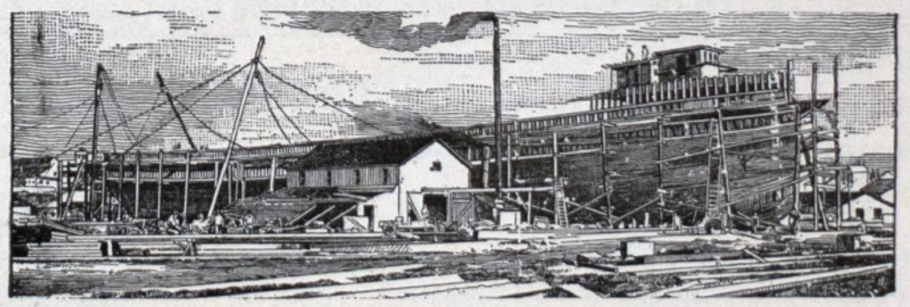

SHEBOYGAN, WIS.

FLOATING DRY DOCK WILL LIFT VESSELS OF 400 TONS.

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Manufacturers of Marine and Stationary Boilers, Smoke Stacks, Tanks, Etc.

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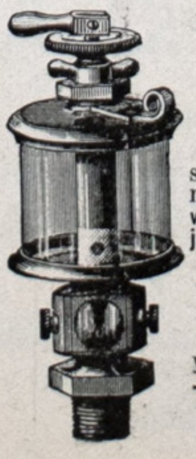

INCOMPARABLE FOR ENGINES AND DYNAMOS.

Convenient to fill.

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Flow of oil can be instantly shut off by simply moving the lever down—**without disturbing the adjustment.**

Also made Double and Triple Sight feed for Marine Engines.

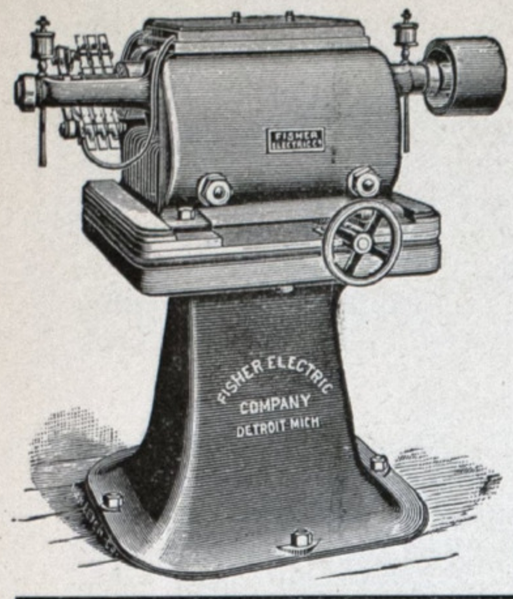
Your dealer can supply you. Manufactured by

The Wm. Powell Co.,

CINCINATTI, O.

PROPOSAL FOR EXTENSION OF BREAKwater, at Buffalo Harbor. U. S. Engineer Office, Buffalo, N. Y., March 5th, 1891. Sealed proposals, in duplicate, for furnishing materials and building about 500 feet, more or less, of extension of the Breakwater at Buffalo Harbor, N.Y., will be received at this office until 2 p.m., on the 4th day of April, 1891, and opened immediately thereafter in the presence of bidders. The attention of bidders is invited to acts of Congress, of February 26th, 1885, and February 23d, 1887, vol. 23, page 332, and vol 24, page 414, Statutes at Large. Preference will be given to articles of domestic production or manufacture, conditions of quality and price (import duties included) being equal. Specifications, general instructions to bidders and blank forms of proposal, or necessary information, will be furnished on application to this office. The United States reserves the right to reject any or all proposals. AMOS. STICKNEY, Major of Engineers, U.S.A. Apr. 2.

SEE CAPT. PECK'S LETTER Regarding Incandescent Lighting Plant on the Steamer S. R. KIRBY.



NORTHWESTERN TRANSPORTATION CO.

DETROIT, MICH., Oct. 7, 1890.

FISHER ELECTRIC CO.,
Detroit, Mich.,

GENTLEMEN :—Replying to your inquiry regarding the operation of the 200 Light Incandescent Plant placed on the Steamer S. R. Kirby, we wish to say that the plant has operated during the season without an interruption and has not cost us one cent. No Lamps have been broken, and we would not be without it. Very truly yours,

E. M. PECK, President.

FISHER ELECTRIC COMPANY, 183, 185 & 187 Larned St., West, DETROIT, MICH.

VESSEL AND MACHINERY EXCHANGE.

Space under this heading may be used gratis by our advertisers or subscribers to call attention to vessels or any craft, machinery, new or second hand, that they may have for sale. Those wanting machinery of any kind, or wishing to purchase vessels, are invited to take advantage of the same offer. Each item will be limited to three lines. Letters concerning same must mention number attached to item and be addressed MARINE REVIEW, 510 Perry-Payne Building, Cleveland. O.

39—FOR SALE—Two tugs ; one is 63 feet long, and has 14 x 19 engines, and the other is 40 feet long, and was built two years ago.

41—FOR SALE—Two fire box marine boilers, 6½ ft. by 13½ ft., allowed 90 pounds steam, deep furnace, suitable for wood or coal, in good order.

42—WANTED—Dredge in good condition. Give size of dipper, and when and by whom built.

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44—FOR SALE—The Steamer A. L. Hopkins, carries 1,100 tons on 13½ draught water ; thorough fit-out for all kinds freight, and complete in every way.

45—FOR SALE—Barge Senator Blood, in good condition.

46—FOR SALE—Steambarge, 102 ft. keel, 24 ft. beam, 7½ ft. hold, steeple compound engine, 12 in., 21 in. by 16 in , 125 pounds steam.

47—FOR SALE—New Barge building, 127 ft keel, 30 ft. beam, 9½ hold, diagonally strapped, steeple compound engine, 14 in., 28 in. by 24 in., 125 pounds steam.

48—A few shares of stock in a first class passenger transportation company, for sale at $100 each.

49—FOR SALE—Ferry and towing line with contracts worth $?,000.

50—FOR SALE—Tug, 52 ft. over all, 11 ft. beam, engine 10 x 12, boiler allowed 100 pounds, built in 1887.

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54—WANTED—Good mate for passenger boat, must have small capital to invest.

FOR SALE: The Steamer A. L. Hopkins.

Carries 1,100 tons on 13½ draught water. Thorough fit-out for all kinds freight and complete in every way.

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Just the Thing that is Wanted on Every Vessel!

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GENTS: It affords me great pleasure to testify of the great work your extinguisher does. I have four of them on board and for their simplicity of handling, as well as quickness of extinguishing a fire, they have no equal. Yours truly, CAPT. H. H. HICKMOTT,
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All trains daily except Sunday.

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	Arrive.	Depart.
Youngstown Accommodation	*7 15 AM	†6 05 AM
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Mantua Accommodation	*7 20 PM	*4 20 PM
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THE ONLY LINE TO ST. PAUL AND MINNEAPOLIS, VIA DULUTH, The New Short Line from principal points in Michigan to DULUTH. PACIFIC COAST and intermediate sections. RATES ALWAYS THE LOWEST.

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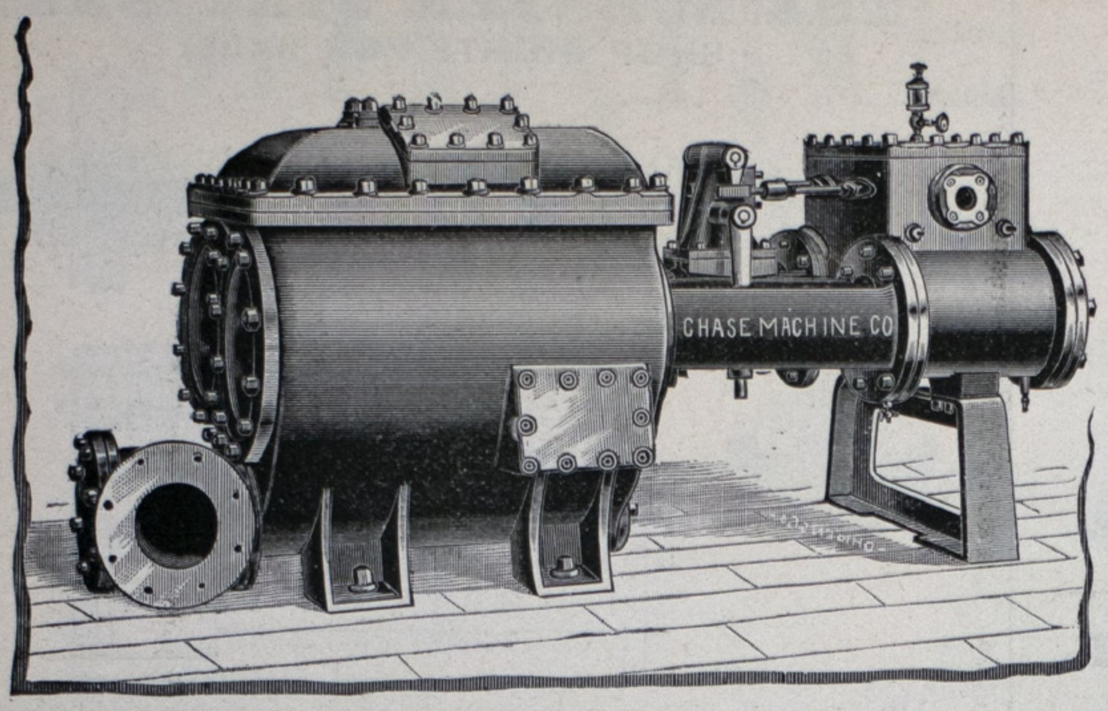

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Special Attention given to Marine Repair Work.

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DIRECTORY OF LAKE DRY DOCKS,

Giving Dimensions and Location of all Important Docks, for Information of Owners and Masters.

DOCK.	LOCATION.	Length on Keel Blocks.	Width of Gate.	Depth of Water on Sill and Keel Blocks.	SPECIAL ADVANTAGES.	FOR NIGHT SERVICE.
Bay City Dry Dock & Ship Y'd Co.	Bay City, East Side River,.....	310	42½-43½	13–14	Nearest Dock to Mackinaw and Sault Ste. Marie.	Call Foreman Edward Trahan, cor. McEwan and Water Sts.
Cleveland Dry Dock Co.	Cleveland, So. Side River Bed,	312	40 ft. 8 in.	11½–12	Nearest Dock to Harbor Entrance.	Watchman at Dock. Manager, 75 Duane St. Foreman, 126 Fulton
Clark Dry Dock Co.....	Detroit, Lower Docks,.....	360 220	68 42	10½ 9 upper 11½ 10 end.	.....	Watchman at Dock will call Superintendent.
Detroit Dry Dock Co.	Detroit, Upper Docks,.....	239 300	42 56	8 12	.....	Watchman. Will call Sup't.
Ship Owners' Dry Dock Co.....	Cleveland, Head Old River Bed	340	50	18	Depth of water enables loaded vessels to dock here.	Call Watchman.
Union Dry Dock Co.....	Buffalo,..... Upper, Lower,	343 343	48 44	10½ 15½	Three steam derricks connected with each dock.	Call watchman.
Wolverine Dry Dock Co.....	Pt. Huron, near Water Works.	200	40	14	Dock Waterlogged Vesssls.	Watchman at Dock, nights and Sundays to call foreman.
R. Mills & Co.....	Buffalo, N. Y.	280 320	40 46	12 13½	Boom Derricks.	Call Watchman.

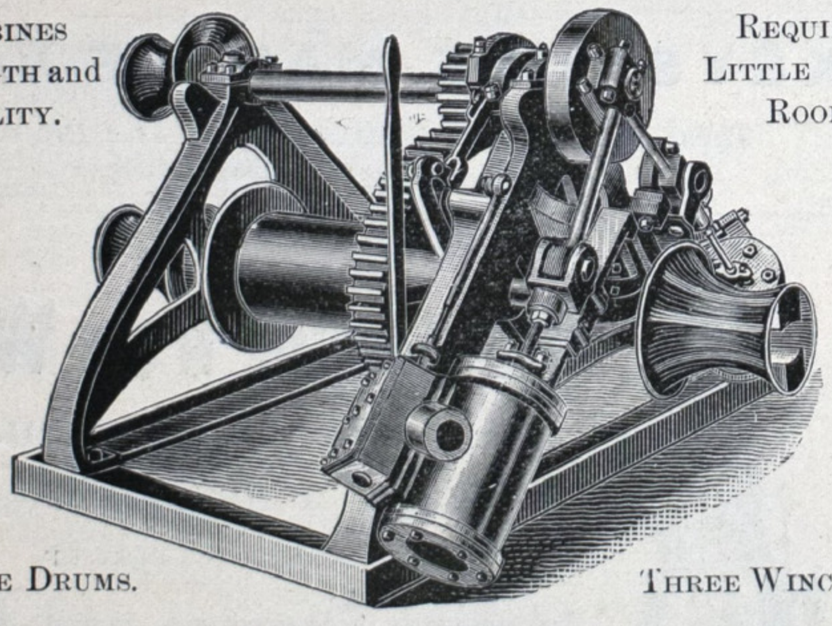
THIS DECK HOIST

WORKS WITH LINK MOTION
HAS INCLINED CYLINDERS,

IS OPERATED BY ONE LEVER, AND POSSESSES MANY ADVANTAGES OVER OTHER HOISTS.

COMBINES STRENGTH and UTILITY.

REQUIRES LITTLE DECK ROOM.



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THREE WINCHES.

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"No Boat Properly Fitted Out Without Them."

Use only Machines that are RELIABLE; that have PROVED themselves IN ACTUAL SERVICE. 100 Boats already use them.

Cleveland, O., Jan. 6, 1891.

MILLER CHEMICAL ENGINE CO., Room 4, Bratenahl Blk.

GENTLEMEN: I had occasion on the 13th of November to use your Extinguisher on board the steamer Queen of the West, of Cleveland. A large lamp used for signal purposes aft, fell about twenty feet and set fire to the whole roof of the engine room. I do not know what the consequences would have been but for the prompt and effectual way in which your extinguisher put out the fire, as the wind was blowing hard and a heavy sea running at the time. I heartily recommend your machine as a fire extinguisher on all classes of steamships. Yours truly,

JOS. A. NICOLSEN, Master Str. Queen of the West.

182 24th Street,

MILLER CHEMICAL ENGINE CO. Detroit, Mich., Jan 12, 1891.

DEAR SIRS: Going up Lake Huron last fall during a heavy gale of wind and a big sea running, a fire broke out in one of the rooms of the steamer Fayette Brown, through the accidental upsetting of a lamp among some papers, and had gained considerable headway before discovered. By the prompt use of one of your Chemical Engines it was quickly subdued, and I think there was less than a pint of the fluid used. Have no doubt the fire would have given us lots of trouble without some such prompt and easy way of extinguishing it. Since that time I do not think a steamboat properly fitted out without the Miller Chemical Engine.

Yours truly, C. H. BASSETT, Master Str. Fayett Brown.

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Will furnish Brand free for Ship Chandlers or other dealers who desire their name and address on packages.

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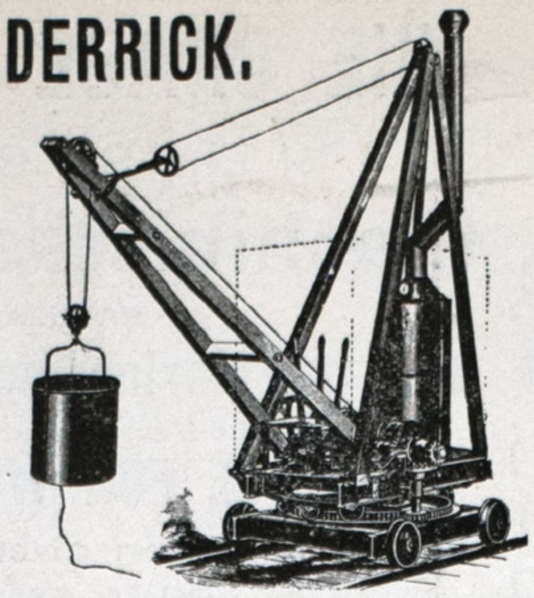

This Derrick makes a complete circuit either to right or left, can be used on Lighter or Steamer, and is built with or without Self-Propelling Attachment, and of any capacity desired.

Manufactured by

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97, 99 & 101 Center St.,
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Also, manufacturers of Cars, Buckets, Friction Clutches and Pumps.

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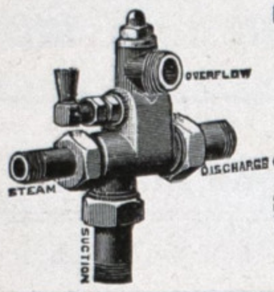

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Works from 25 to 140 lbs. Pressure and Higher if so ordered.

Hot pipes, jar or other motion will not effect it. A trial will convince you of its merits. On trial to responsible parties.

Extra Heavy Check Valves for marine purposes. Valves and Seats of hard metal can be renewed without disconnecting body. Write for prices. MANUFACTURED BY

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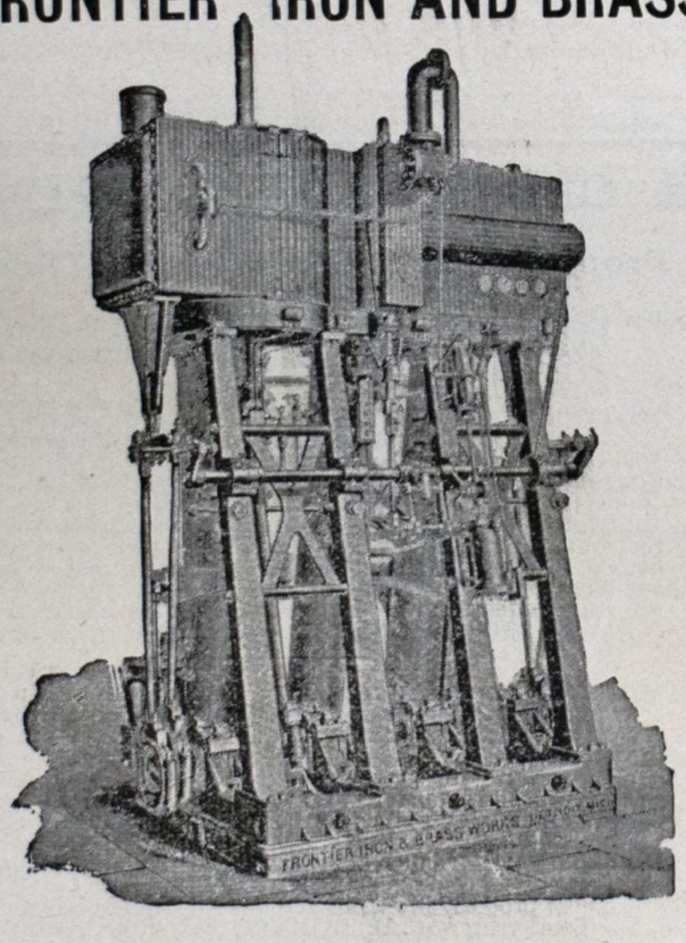

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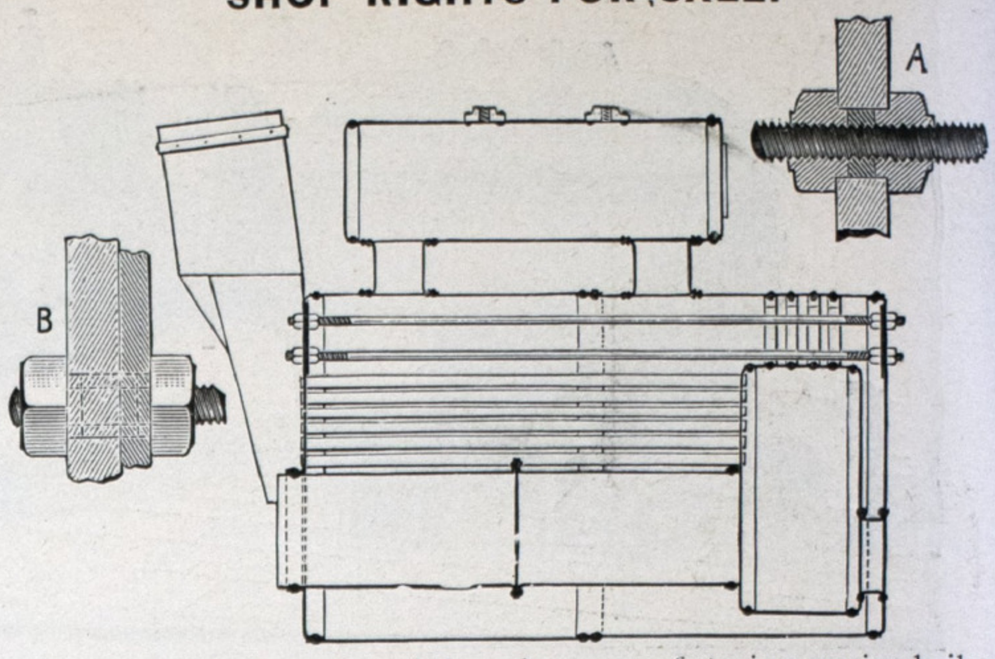

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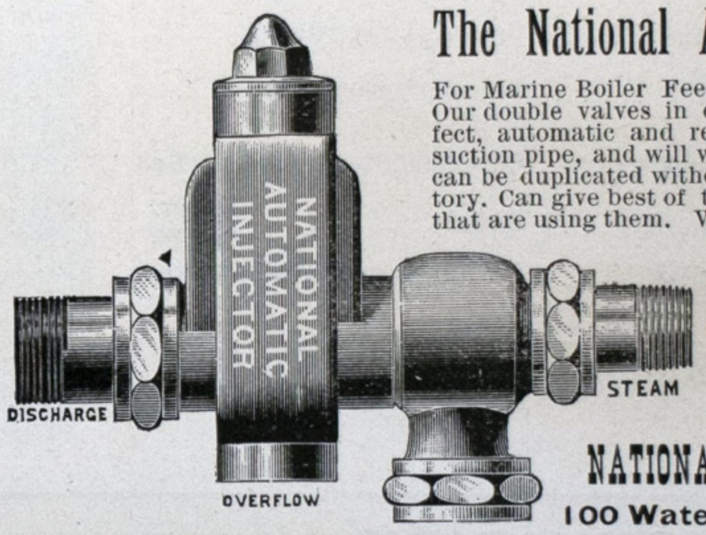

The National Automatic Injector.

For Marine Boiler Feed it is superior to any other. Our double valves in overflow makes it most perfect, automatic and reliable ; will lift with hot suction pipe, and will work water 140 hot. All parts can be duplicated without sending Injector to factory. Can give best of testimonials from engineers that are using them. Will send Injector to any reliable party on a guarantee. Give the National a trial, then decide for yourself if you want it or not. We also make the National Ejector. Send for Descriptive Price List. ☞ Agents wanted in every locality. Prices always the lowest.

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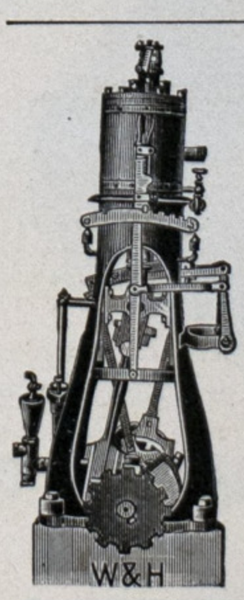
KEYSTONE MARINE VALVE.

These RED, AIR AND FOOT VALVES, are the Best Rubber Valves made.



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Dock will admit vessels of 1200 tons and boxes will lift 350 ton vessels. Yard is fitted with a large spar derrick, and a stock of spars always on hand.

For dimensions of Dry Dock, see page 13.